United States
Environmental Protection
Agency

Solid Waste And
Emergency Response
(5201 G)

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PB95-962902
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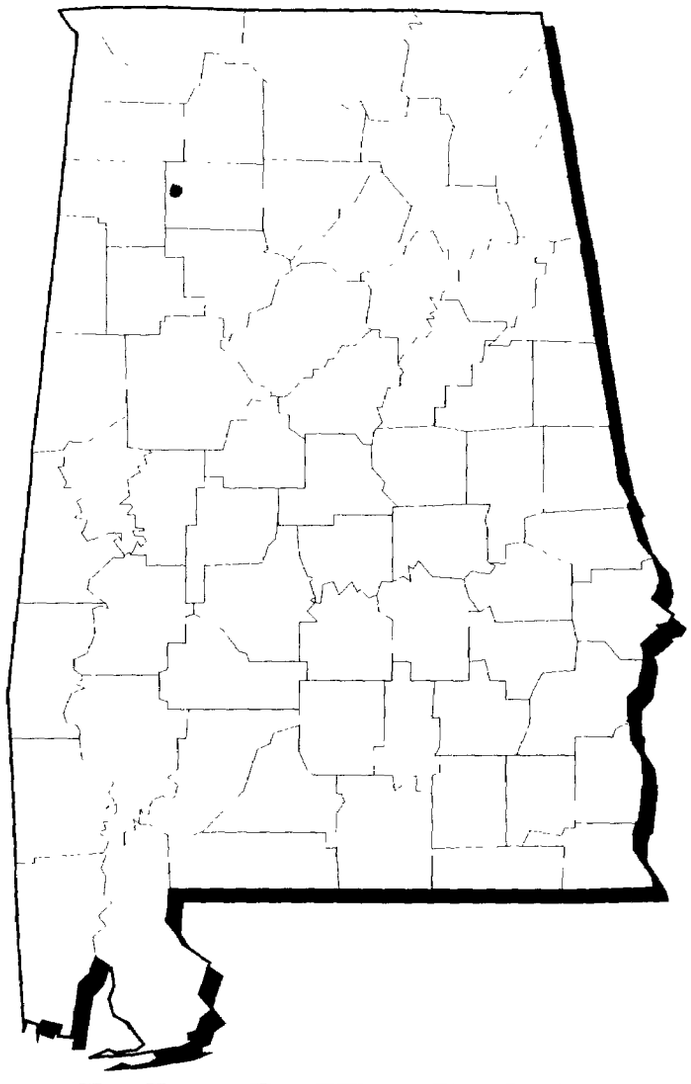
May 1995

SUPERFUND: Progress at National Priority List Sites



ALABAMA 1995 UPDATE

Printed on Recycled Paper

How to Use the NPL Book

The site fact sheets presented in this book are comprehensive summaries that cover a broad range of information. The fact sheets describe hazardous waste sites on the NPL and their locations, as well as the conditions leading to their listing ("Site Description"). The summaries list the types of contaminants that have been discovered and related threats to public and ecological health ("Threats and Contaminants"). "Cleanup Approach" presents an overview of the cleanup activities completed, underway, or planned. The fact sheets conclude with a brief synopsis of how much progress has been made in protecting public health and the environment. The summaries also pinpoint other actions, such as legal efforts to involve polluters responsible for site contamination and community concerns.

The fact sheets are arranged in alphabetical order by site name. Because site cleanup is a dynamic and gradual process, all site information is accurate as of the date shown on the bottom of each page. Progress is always being made at NPL sites, and the EPA periodically will update the site fact sheets to reflect recent actions. The following two pages show a generic fact sheet and briefly describe the information under each section.

How Can You Use This State Book?

You can use this book to keep informed about the sites that concern you, particularly ones close to home. The EPA is committed to involving the public in the decision making process associated with hazardous waste cleanup. The Agency solicits input from area residents in communities affected by Superfund sites. Citizens are likely to be affected not only by hazardous site conditions, but also by the remedies that combat them. Site cleanups take many forms and can affect communities in different ways. Local traffic may be rerouted, residents may be relocated, temporary water supplies may be necessary.

Definitive information on a site can help citizens sift through alternatives and make decisions. To make good choices, you must know what the threats are and how the EPA intends to clean up the site. You must understand the cleanup alternatives being proposed for site cleanup and how residents may be affected by each one. You also need to have some idea of how your community intends to use the site in the future, and you need to know what the community can realistically expect once the cleanup is complete.

The EPA wants to develop cleanup methods that meet community needs, but the Agency only can take local concerns into account if it understands what they are. Information must travel both ways in order for cleanups to be effective and satisfactory. Please take this opportunity to learn more, become involved, and assure that hazardous waste cleanup at "your" site considers your community's concerns.

NPL LISTING HISTORY

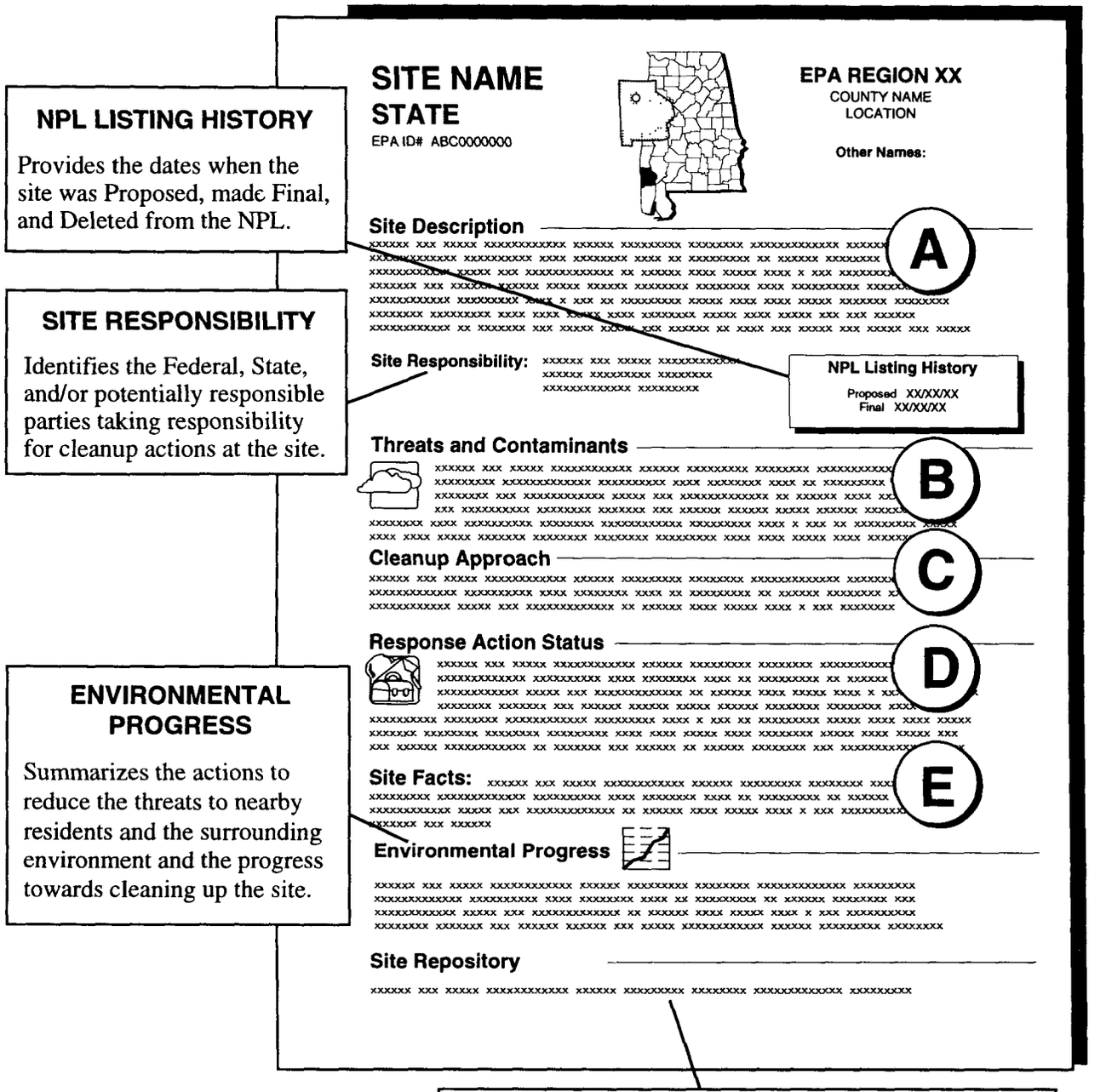
Provides the dates when the site was Proposed, made Final, and Deleted from the NPL.

SITE RESPONSIBILITY

Identifies the Federal, State, and/or potentially responsible parties taking responsibility for cleanup actions at the site.

ENVIRONMENTAL PROGRESS

Summarizes the actions to reduce the threats to nearby residents and the surrounding environment and the progress towards cleaning up the site.



SITE REPOSITORY

Lists the location of the primary site repository. The site repository may include community relations plans, public meeting announcements and minutes, fact sheets, press releases, and other site-related documents.

A

SITE DESCRIPTION

This section describes the location and history of the site. It includes descriptions of the most recent activities and past actions at the site that have contributed to the contamination. Population estimates, land usages, and nearby resources give readers background on the local setting surrounding the site.

B

THREATS AND CONTAMINANTS

The major chemical categories of site contamination are noted, as well as which environmental resources are affected. Icons representing each of the affected resources (may include air, groundwater, surface water, soil, and contamination to environmentally sensitive areas) are included in the margins of this section. Potential threats to residents and the surrounding environments arising from the site contamination also are described.

C

CLEANUP APPROACH

This section contains a brief overview of how the site is being cleaned up.

D

RESPONSE ACTION STATUS

Specific actions that have been accomplished or will be undertaken to clean up the site are described here. Cleanup activities at NPL sites are divided into separate phases, depending on the complexity and required actions at the site. Two major types of cleanup activities often are described: initial, immediate, or emergency actions to quickly remove or reduce imminent threats to the community and surrounding areas; and long-term remedial phases directed at final cleanup at the site. Each stage of the cleanup strategy is presented in this section of the summary. Icons representing the stage of the cleanup process (initial actions, site investigations, EPA selection of the cleanup remedy, engineering design phase, cleanup activities underway, and completed cleanup) are located in the margin next to each activity description.

E

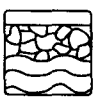
SITE FACTS

Additional information on activities and events at the site are included in this section. Often details on legal or administrative actions taken by the EPA to achieve site cleanup or other facts pertaining to community involvement with the site cleanup process are reported here.

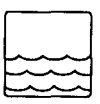
Guide to the NPL Book Icons

The "icons," or symbols, accompanying the text allow the reader to see at a glance which environmental resources are affected and the status of cleanup activities at the site.

Icons in the Threats and Contaminants Section



Contaminated *Groundwater* resources in the vicinity or underlying the site. (Groundwater is often used as a drinking water source.)



Contaminated *Surface Water and Sediments* on or near the site. (These include lakes, ponds, streams, and rivers.)

Contaminated *Air* in the vicinity of the site. (Air pollution usually is periodic and involves contaminated dust particles or hazardous gas emissions.)

Contaminated *Soil and Sludges* on or near the site. (This contamination category may include bulk or other surface hazardous wastes found on the site.)

Threatened or contaminated *Environmentally Sensitive Areas* in the vicinity of the site. (Examples include wetlands and coastal areas or critical habitats.)

Icons in the Response Action Status Section

Initial, Immediate, or Emergency Actions have been taken or are underway to eliminate immediate threats at the site.

Site Studies at the site to determine the nature and extent of contamination are planned or underway.

Remedy Selected indicates that site investigations have been concluded, and the EPA has selected a final cleanup remedy for the site or part of the site.

Remedy Design means that engineers are preparing specifications and drawings for the selected cleanup technologies.

Cleanup Ongoing indicates that the selected cleanup remedies for the contaminated site, or part of the site, currently are underway.

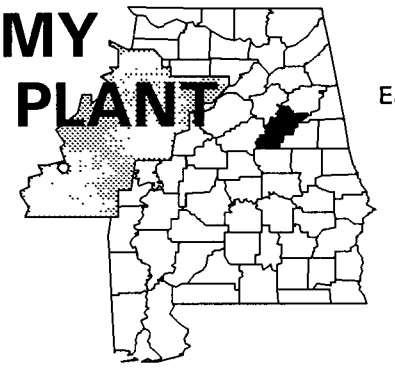
Cleanup Complete shows that all cleanup goals have been achieved for the contaminated site or part of the site.

EPA ID NUMBER	SITE NAME
AL6210020008	ALABAMA ARMY AMMUNITION PLANT
AL3210020027	ANNISTON ARMY DEPOT (SE INDUSTRIAL AREA)
ALD001221902	CIBA-GEIGY CORP. (MCINTOSH PLANT)
ALD041906173	INTERSTATE LEAD CO. (ILCO)
ALD067102301	MONARCH TILE MANUFACTURING, INC.
ALD031618069	MOWBRAY ENGINEERING CO
ALD008188708	OLIN CORP. (MCINTOSH PLANT)
ALD980728703	PERDIDO GROUND WATER CONTAMINATION
AL7210020742	REDSTONE ARSENAL (USARMY/NASA)
ALD980844385	REDWING CARRIERS, INC. (SARALAND)
ALD095688875	STAUFFER CHEMICAL CO. (COLD CREEK PLANT)
ALD008161176	STAUFFER CHEMICAL CO. (LEMOYNE PLANT)
ALD007454085	T. H. AGRICULTURE & NUTRITION (MONTGOMERY)
ALD983166299	TRIANA/TENNESSEE RIVER

ALABAMA ARMY AMMUNITION PLANT

ALABAMA

EPA ID# AL6210020008



EPA REGION 4

Talladega County
East of the Coosa River, north of Childersburg

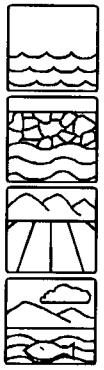
Site Description

The Alabama Army Ammunition Plant (AAAP) site covers approximately 5,170 acres just east of the Coosa River, 4 miles north of Childersburg. The plant was established in 1941 and was used for the manufacture of explosives including trinitrotoluene (TNT), dinitrotoluene, nitrocellulose, and tetryl. The Army ceased operations in 1945, but the plant remained on standby status until 1973, when it was declared to be excess property. Most of the structures used in the manufacturing processes have been demolished or destroyed by controlled burning. Sources of contamination include disposal sites, spills, and general wastes including recycled acids from the manufacturing operations. Because the site is complex, and the site activities were so varied, the site has been divided into Areas A and B for cleanup purposes. Land use around the site is primarily recreational, industrial, agricultural, or undeveloped. Three farms border the site and a small residential community lies several thousand feet southeast of the site next to Talladega Creek. The creek may be considered a groundwater divide located between AAAP and the City. Only an estimated 40 residents live within 1 to 2 miles of the site. There are other residences both north and south of the site, but they are buffered from the site by other industry or extensive undeveloped or wooded areas. Childersburg uses groundwater for drinking water. The total population using the river as a source of drinking water is estimated to be 1,800, and the population using groundwater is estimated to be 700. Under the Base Realignment and Closure Act of 1991, the base will be slotted for closure and property transfer. Area A was sold to private citizens in 1991 and is currently used as a wildlife preserve and hunting ground. Area B will be cleaned to levels that will allow industrial or recreational reuse.

Site Responsibility: This site is being addressed through Federal actions.

NPL LISTING HISTORY
Proposed Date: 10/15/84
Final Date: 07/22/87

Threats and Contaminants



Contaminants of concern on site are the nitroaromatic compounds, including TNT, which have been detected in the surface water and the groundwater. The groundwater is the main source of drinking water. Lead, asbestos, and nitroaromatic compounds have been detected in the soil. Coming into direct contact with or accidentally ingesting the contaminated groundwater, surface water, or soils could be a major health threat. There also is a possibility of a fire or explosion due to the nature of the wastes on site. The site is used as a wildlife preserve and licensed deer hunting ground. Ecological risk will be evaluated as a part of the Army's continued study to determine the nature and extent of contamination and to identify alternatives for cleanup.

Cleanup Approach

The site is being addressed in four long-term remedial phases focusing on cleanup of stockpile soils at Area A; cleanup of groundwater, soil, and surface water contamination at Area B; investigations of the effectiveness of Area A cleanup; and cleanup of the TNT process areas.

Response Action Status

Stockpile Soils at Area A: The Army completed an investigation of soils for Area A in 1991 that evaluated the nature and the extent of the contamination. The EPA concurred with the selected remedy for soils previously stockpiled at the site. The previous actions in Area A, conducted in 1988, included soil excavation and decontamination of storage igloos and buildings. All previously excavated and stockpiled soils were incinerated in the summer of 1994, in addition to contaminated soils from two small, excavated parcels in Area A. Metal-rich residues of the incineration process were stabilized and disposed of in a lined on-site landfill. Cleanup activities were completed in the fall of 1994.

Area B: The Army currently is investigating the soil, groundwater, and surface water in Area B to evaluate the nature and the extent of the contamination. Previous investigations have found that groundwater contaminated with nitroaromatic compounds is above Federal drinking water standards, and surface water contaminated with nitroaromatics and lead also is above water quality standards. The investigation is scheduled to be completed in 1996. Once the study has been completed, the Army will select a final cleanup remedy.

Area A: In 1990, the EPA began an investigation to determine if additional activities were required to meet established cleanup standards for Area A. This investigation was completed in 1993. Currently, the groundwater is undergoing further investigation to determine the nature and extent of contamination.

TNT Process Areas: In late 1994, the EPA completed an investigation into the nature and extent of contamination in areas 6, 7, 10, and 21, known as the TNT process areas. The remedy selected includes excavating and incinerating contaminated soil, and backfilling the excavated areas with clean fill. The design of the remedy is scheduled for completion in 1995.

Site Facts: A Federal Facility Agreement has been filed between the Army, the Alabama Department of Environmental Management, and the EPA for cleanup actions at the site. AAAP also is participating in the Installation Restoration Program, a specially funded program established by the Department of Defense (DOD) in 1978 to identify, investigate, and control the migration of hazardous contaminants at military and other DOD facilities. The Army has selected 24 separate study areas within Areas A and B of the AAAP site.

Environmental Progress

Excavating and incinerating contaminated soils have reduced the threat at the Alabama Army Ammunition Plant site while further cleanup activities are being planned.

Site Repository

Earle A. Rainwater Memorial Library, The Alabama Room, 112 Ninth Avenue, SW, Childersburg, AL 35044

ANNISTON ARMY DEPOT (SOUTHEAST INDUSTRIAL AREA)

ALABAMA

EPA ID# AL3210020027

EPA REGION 4
Calhoun County
Anniston

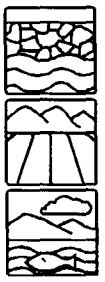
Site Description

The Anniston Army Depot (Southeast Industrial Area) site comprises 600 acres in the southeastern area of the Nichols Industrial Complex. This area consists of several shipping and warehouse buildings that have been used since 1948 for the repair and modification of combat vehicles and artillery equipment. The Depot's initial mission was limited to ammunition storage, refurbishment, testing, and decommissioning of combat vehicles and various types of military equipment. A 1979 study revealed that on-site disposal of wastes generated by chemical cleaning, painting, and plating operations had resulted in groundwater contamination. Two facilities were closed as a result of the 1979 investigations: a 2-million-gallon lagoon (A-Block Lagoon) and a landfill operation (Site Z-1). Approximately 39,000 residents live near the site in Anniston. The southeastern industrial area is drained by Dry Creek, which flows into Choccolocco Creek, a tributary of the Coosa River. Coldwater Spring is located adjacent to Dry Creek, approximately 1½ miles south of the depot boundary and is the primary source of drinking water for approximately 72,000 people in Calhoun County.

Site Responsibility: This site is being addressed through Federal actions.

NPL LISTING HISTORY
Proposed Date: 10/15/84
Final Date: 03/13/89

Threats and Contaminants

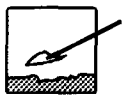


On-site groundwater is contaminated with heavy metals, chlorinated solvents, and volatile organic compounds (VOCs). A soil removal operation was conducted by the Army on two separate occasions to remove contaminated soils to a permitted treatment facility. The soil contamination included chromium, methylene chloride, trichloroethylene (TCE), phenols, and dichloroethylene. Aquatic life that may be at risk from contamination in the Coldwater Spring includes pygmy sculpin, water snake, crayfish, and various aquatic insects. If site-related contaminants have migrated into Coldwater Spring, residents could ingest and be directly exposed to contaminated water.

Cleanup Approach

The site is being addressed in three stages: initial actions and two long-term remedial phases focusing on cleanup of groundwater and cleanup of the South East Industrial Area.

Response Action Status



Initial Actions: In 1993, the Army completed excavating contaminated soil and removing it to an off-site approved disposal facility. The Army also installed an air stripper in 1987 to treat the 400,000 to 900,000 gallons per day of groundwater pumped from underneath the Metal Finish Facility.

Groundwater: A total of 16 extraction wells were installed in 1988: seven wells at the trench area (Site Z-1); six wells in the northeastern area; and three in the old landfill area. These wells were evaluated to provide a basis for site characterization and groundwater extraction system design and optimization. The extraction wells and treatment system were completed in 1992. The extraction systems operate for 24 continuous hours. Automatic on/off systems for intermittent pumping are used for all wells, especially low-yielding wells in critical capture areas. Extraction system performance monitoring during the first three to six months of system operation provided additional data on long-term aquifer behavior, draw-down effects, and contaminant capture. Actual cleanup activities began in late 1991. These activities are being conducted as an interim cleanup action. A pump and treat system is in operation at the South East Industrial Area. Further investigations are being conducted to determine a final remedy for the groundwater.

Southeast Industrial Area: In 1990, the Army began a study of the nature and extent of site contamination. The study, which will lead to a final cleanup remedy, is scheduled for completion in 1996.

Site Facts: A Federal Facility Agreement has been negotiated between the Army, the Alabama Department of Environmental Management, and the EPA for cleanup actions. Anniston Army Depot is participating in the Installation Restoration Program, a specially funded program established by the Department of Defense (DOD) in 1978 to identify, investigate, and control the migration of hazardous contaminants at military and other DOD facilities.

Environmental Progress 

The Army already has taken several steps to improve conditions at the Anniston Army Depot (Southeast Industrial Area), such as excavating and removing contaminated soil and installing an air stripping treatment system to pump and treat contaminated groundwater. A removal of hazardous waste at the Industrial Waste Treatment Plant directly addressed the immediate threat to depot worker safety and the potential threat to the environment. Cleanup activities are continuing, and extraction wells have been installed; therefore, the site currently does not pose an immediate threat to the public or to the environment.

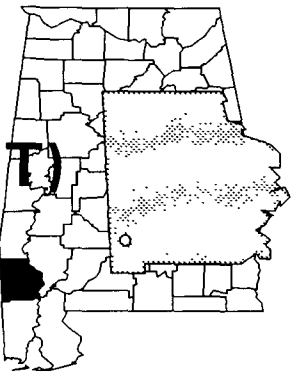
Site Repository

Anniston Public Library, 108 East Tenth Street, Anniston, AL 36202

CIBA-GEIGY CORPORATION (MCINTOSH PLANT)

ALABAMA

EPA ID# ALD001221902



EPA REGION 4
Washington County
McIntosh

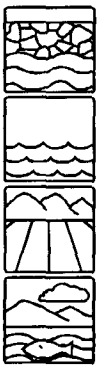
Site Description

The Ciba-Geigy Corporation (McIntosh Plant) produces industrial organic chemicals, pesticides, agricultural chemicals, and synthetic resins on a 1,500-acre site in McIntosh. The plant was built in the early 1950s, and the company formerly disposed of wastes in several on-site landfills and in an open burning area. Disposal of wastes is now carried out under EPA requirements. Pesticides have been found in soil and sediments downgradient of the burn area and in a drinking water well on the site. Prior to 1965, effluent from the plant flowed into the Tombigbee River after chemicals were neutralized in the facility's wastewater impoundment. However, an aeration basin and holding basin were constructed in 1965 to treat the effluent. Over the years, modifications have been made to the treatment system to meet State and Federal discharge standards. Approximately 2,200 residents of McIntosh receive drinking water from a public well within 3 miles of the site; however, most public wells are upstream from the site and do not appear to be contaminated. The closest residence lies less than 1,000 feet from the site. The Tombigbee River and freshwater wetlands are located within 100 feet of several former disposal areas, and the wetlands area is subject to periodic flooding by the river.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 09/08/83
Final Date: 09/24/84

Threats and Contaminants



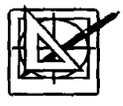
A drinking water well on the site is contaminated with lindane from former waste disposal practices. Sediments are contaminated with heavy metals including chromium and mercury. Soil is contaminated with DDT, lindane and other pesticides. Surface water contains volatile organic compounds (VOCs) including chlorobenzene, toluene, and phenols. Trespassers at the facility who accidently ingest or otherwise come into contact with contaminated groundwater, surface water, soil, or sediments may be at risk. Runoff from the site could threaten wetlands near the disposal areas.

Cleanup Approach

The site is being addressed in four long-term remedial phases focusing on cleanup of the groundwater; the affected deep aquifer and soil; the wetlands area; the dilute ditch; and the bluff line.

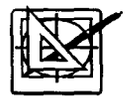
Response Action Status

Groundwater: The Ciba-Geigy Corporation installed a groundwater pumping system consisting of 10 fully penetrating alluvial pumping wells to intercept and remove contaminated groundwater from the shallow aquifer. The water removed from these wells is treated by the plant's on-site biological wastewater treatment system and is then discharged into the Tombigbee River. Ciba-Geigy installed 43 monitoring wells and four corrective action monitoring wells to continue to ensure the effectiveness of the groundwater treatment system. The treatment system is expected to continue operating for more than 10 years.



Deep Aquifer and Soil: In 1991, the Ciba-Geigy Corporation completed a study to determine the type and extent of the soil and deep aquifer contamination at the site. The cleanup alternatives selected include: excavating contaminated soils and sludges; on-site thermal treatment of approximately 65,000 cubic yards of highly contaminated soils and sludge; stabilizing/solidifying approximately 62,300 cubic yards of moderately contaminated soils and sludge; disposing of solidified/stabilized soil in an on-site EPA-approved landvault(s); in-situ soil flushing combined with extraction wells to cleanup areas where the risk based cleanup levels were not achieved before, and an excavation depth of 20 feet is reached; backfilling the excavated areas with common fill or treated soil and debris and vegetating the area; operating and maintaining landvault(s) for a minimum of 30 years; and establishing institutional controls for land use and groundwater use. Innovative technologies such as in-situ vacuum extraction or in-situ bioremediation also may be used in addition to or instead of in-situ soil flushing. The use of these technologies will be determined during the design phase, scheduled for completion in 1996.

Wetlands and Dilute Ditch: In 1992, the Ciba-Geigy Corporation began a study to determine the nature and extent of contamination of the wetlands area and the dilute ditch. The study is expected to be completed in mid-1995, at which time a cleanup remedy will be selected.



Bluff Line: In 1992, the Ciba-Geigy Corporation completed a study of the nature and extent of contamination of the bluff line. A cleanup remedy was selected in the summer of 1992 which includes: excavating contaminated soil; removing contaminants through thermal treatment; stabilizing/solidifying the soil; backfilling the excavated areas with clean fill; and vegetating the area. Design activities for the remedy are underway and are scheduled for completion in late 1996.

Site Facts: The Ciba-Geigy Corporation is operating under a Federal hazardous waste management permit.

Environmental Progress 

The EPA has determined that the existing groundwater extraction and treatment system is adequately containing and treating the contaminated groundwater at the site. Ciba-Geigy will continue to monitor the effectiveness of the groundwater treatment system through monitoring wells and will submit periodic sampling results to the EPA for review. Cleanup alternatives for the bluff line, deep aquifer, and soils have been selected and plans for cleanup activities are currently underway while the investigation at the wetlands and dilute ditch is being completed.

Site Repository 

McIntosh Town Hall, Commerce Street, McIntosh, AL 36553

INTERSTATE LEAD COMPANY (ILCO)

ALABAMA

EPA ID# ALD041906173

EPA REGION 4

Jefferson County
Leeds

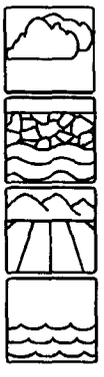
Site Description

Interstate Lead Company (ILCO) owned and operated this 8½-acre lead battery reclamation facility and secondary lead smelter. Wastes containing lead were generated, treated, stored, and disposed of on both the ILCO property and other numerous locations near the site. Slag from reclamation operations was used as fill or disposed of at seven satellite areas, including the ILCO Parking Lot, the City of Leeds Landfill, Fleming's Patio, the Acmar Church of God, J & L Fabricators, Inc., the Connell Property, and the Gulf/BP Service Station. The unnamed tributary to Dry Creek, adjacent to the main facility and parking lot, contains lead-contaminated sediments. Approximately 3,000 people live within a 3-mile radius of the site, and the nearest home is located less than ¼ mile away from the site. Six of the locations listed above are within 3 miles of the springs and wells that supply drinking water to 6,000 families in Leeds. Access to most of the sites is unrestricted; however, access is restricted at the main facility.

Site Responsibility: This site is being addressed through Federal, potentially responsible parties', and local actions.

NPL LISTING HISTORY
Proposed Date: 09/18/85
Final Date: 06/10/86

Threats and Contaminants

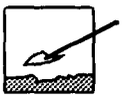


The County measured elevated lead concentrations in the air south and southwest of the ILCO main facility in 1983 and 1984. The owner found lead and cadmium in groundwater under the facility in 1985. Groundwater and soil also contain the heavy metals chromium, nickel, and arsenic, in addition to high levels of lead. The State detected lead in Dry Creek and an unnamed tributary next to the facility. Surface water and sediments also contain nickel and arsenic. People could be exposed to heavy metals by coming into direct contact with or accidentally ingesting contaminated soils or by drinking polluted groundwater. In addition, contaminants in nearby surface water and sediments could pose a health threat to residents who use the area for recreation.

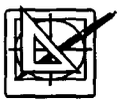
Cleanup Approach

This site is being addressed in four stages: emergency actions and three long-term remedial phases focusing on cleanup of the entire site, ILCO main facility, and Dry Creek and tributary.

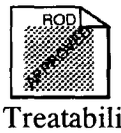
Response Action Status



Emergency Actions: In 1984, the EPA removed lead-bearing wastes from the Church of God area. ILCO placed a synthetic liner over the ILCO parking lot, covered waste piles at the main facility, diverted runoff, and constructed a stormwater treatment system. In 1992, after the company went bankrupt, the EPA initiated another emergency response action to address contamination at the main facility. Approximately 50,000 cubic yards of soil that had been stockpiled on the site were removed, lead slag was sent off site to a hazardous waste landfill, and several buildings were decontaminated or destroyed.



Entire Site: In 1991, remedies were chosen to address the source of contamination at each of the seven satellite areas. At all of the satellite areas except the City of Leeds Landfill, lead-contaminated soils will be excavated, transported to the ILCO Main Facility for treatment, and the satellite sites will be backfilled with clean material. Excavated and backfilled satellite areas will be revegetated. Battery casings, slag, and other debris also will be removed from the satellite areas and sampled for primary metal contamination semi-annually. At the City of Leeds Landfill, a clay cap will be installed to cover the lead-contaminated soils. Studies of the groundwater at the Gulf/BP Service Station and the Acmar Church of God Satellite areas have shown no contamination. The groundwater at the J&L Fabricators, Fleming's Patio, and Connell Property satellite areas show low levels of contamination and will clean itself over time through natural attenuation. While cleanup activities are not required, groundwater monitoring will continue. Contaminated groundwater at the City of Leeds Landfill will be extracted, treated on site, and discharged into an adjacent surface drainageway. Groundwater will be monitored both during and after the extraction and treatment procedure. Design activities for these remedies are underway, and cleanup is scheduled to begin in early 1997.



ILCO Main Facility: In 1994, a remedy was chosen to address the soil and groundwater contamination at the ILCO Main Facility. Contaminated soils will be excavated and treated on site by acid leaching or by solidification and stabilization. Treatability studies will determine the most effective cleanup methods. Battery casings, slag, and other debris will be treated and disposed of. Contaminated groundwater at the ILCO Main Facility and the ILCO parking lot will be extracted, treated on site, and discharged into the unnamed tributary adjacent to the main facility. Groundwater will be monitored during and after the extraction and treatment procedures.

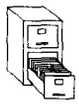
Dry Creek and Tributary: Studies of contaminated surface water, sediment, and fish are being conducted at the unnamed tributary and Dry Creek, located adjacent to the ILCO Main Facility, to determine the extent of contamination discharged from the ILCO facility. The studies are scheduled for completion by late 1995, at which time cleanup remedies will be selected.

Site Facts: ILCO signed a Consent Order agreeing to conduct a study of site contamination and cleanup options on the main facility, parking lot, and tributaries to Dry Creek.

Environmental Progress

The emergency response actions described above reduced the threat to people and the environment at the site while further cleanup activities are being planned.

Site Repository



Leeds Public Library, 802 Parkway Drive, S.E., Leeds, AL 35094

MONARCH TILE MANUFACTURING, INC.

ALABAMA

EPA ID# ALD067102301

EPA REGION 4
Lauderdale County
Florence

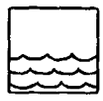
Site Description

The area surrounding the Monarch Tile Manufacturing, Inc. site is primarily industrial, with Seaboard Railroad tracks to the west and a bus maintenance facility to the south of the site. From 1954 to 1973, Stylon Corp. produced ceramic tiles and glazes on the site. When Stylon went bankrupt in 1973, Monarch leased the property from the City of Florence and took over the production operations. Monarch officially purchased the site in 1980. Both Monarch and Stylon used zinc contaminated with lead, barium, and cadmium as colorants during their operations. Beginning in 1960, these hazardous wastes were sent to a separator and then put into settling ponds. Excess liquid often drained into ditches that run south of the site. In 1976, with the city's permission, Monarch began discharging the contaminated liquids directly into the Florence Sewer System. At first, solid wastes from the site were taken to a nearby municipal landfill. In 1980, Monarch began disposing of these solid wastes in an on-site disposal trench. In 1989, representatives from the Alabama Department of Environmental Management (ADEM) found a variety of heavy metals, including barium, lead, and zinc in sediment samples collected from the settling ponds. In 1990, ADEM tests showed that the drainage ditch also was contaminated with heavy metals, and that the contamination had spread to two neighboring waterways, Cox Creek and a tributary of Sweetwater Creek. In addition to these waterways, Pickwick Lake, a segment of the Tennessee River, is located approximately three miles north of the site, and Cypress Creek is located approximately two miles east. The Florence Water Department supplies drinking water to about 63,000 people from an intake where Cox Creek and Cypress Creek join. The nearby Sheffield Water Department has an intake on the Tennessee River that supplies drinking water to an additional 14,100 people.

Site Responsibility: The site is being addressed through Federal and State actions.

NPL LISTING HISTORY
Proposed Date: 05/10/93

Threats and Contaminants



In 1989, local environmental officials discovered heavy metals in settling pond sediments. In 1990, additional testing revealed that Cox Creek and a tributary of Sweetwater Creek also were contaminated with heavy metals. Cox Creek, Cypress Creek, and the Tennessee River are used for recreational fishing. People who touch or ingest contaminated surface water or sediments could be at risk.

Cleanup Approach

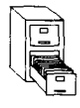
This site is being addressed in a long-term remedial phase focusing on the cleanup of the entire site.

Response Action Status

Entire Site: The EPA is scheduling an investigation into the nature and extent of contamination at the site.

Environmental Progress 

The EPA and the State of Alabama have performed initial studies at the site and have determined that no immediate actions are necessary at the site while investigations leading to final cleanup are being planned.

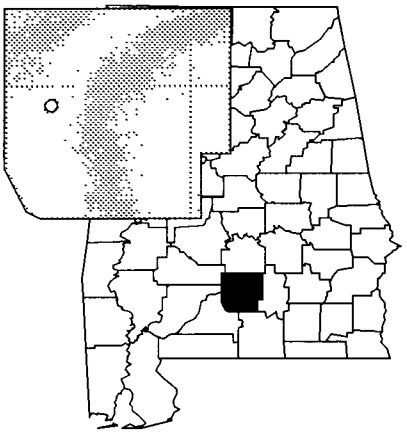
Site Repository 

Not yet established.

MOWBRAY ENGINEERING COMPANY

ALABAMA

EPA ID# ALD031618069



EPA REGION 4

Butler County
Greenville

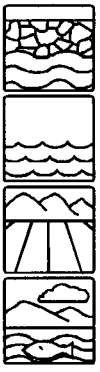
Site Description

The 3-acre Mowbray Engineering company site is located on a wetland which is saturated most of the time. The company, which repaired electrical transformers from the early 1940s to the 1980s, discharged waste transformer oils containing polychlorinated biphenyls (PCBs) to the neighboring swamp for over 20 years. The swamp water ultimately drained into Persimmon Creek, which is used for fishing. From 1955 to 1974, operators drained, repaired, and refilled about 1,000 used transformers each year, each unit holding about 9 gallons of oil. In 1974, the owners installed a 3,000-gallon underground storage tank to collect waste oil, which was sold between 1974 and 1978. After that time, waste oil was recycled. Sampling over the years has yielded inconsistent results. In 1975, after a major fish kill in an adjacent stream, EPA analysts found only trace levels of PCBs, but when another kill occurred in 1980, they discovered significant levels of PCBs in swamp soils. An aquifer underlying the site supplies approximately 11,400 residents with drinking water; however, this aquifer was not affected by site contamination.

Site Responsibility: This site was addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 12/30/82
Final Date: 09/08/83
Deleted Date: 12/30/93

Threats and Contaminants



Sampling of the site's four monitoring wells revealed PCBs, carbon disulfide, and various volatile organic compounds (VOCs) in the groundwater. Sediments and soils downstream of the site and in the wetlands contained PCBs. Soil in the on-site processing area contained PCBs, polycyclic aromatic hydrocarbons (PAHs), and VOCs. Fish caught in 1981 at the confluence of Persimmon Creek and Tanyard Branch and downstream were contaminated with PCBs. Accidentally ingesting or coming in direct contact with contaminated groundwater, surface water, sediments or soil posed health threats prior to cleanup. Eating contaminated fish was a possible health threat until cleanup actions were taken.

Cleanup Approach

Response Action Status

Immediate Actions: In 1981, the EPA sent emergency cleanup workers to the site to remove debris and the top 6 inches of PCB-contaminated swamp soil and disposed of these wastes at an EPA-approved facility.

Entire Site: In 1985, when soils in the stormwater drainage pathway were discovered to be highly contaminated with PCBs, the EPA devised a long-term cleanup strategy. The remedy selected for this site included: excavating, removing, and disposing of the underground storage tanks located on company property; treating or disposing of waste oils encountered in the swamp area and in the underground storage tanks by a method approved under the toxic substances control laws; diverting the drainage of surface runoff around the swamp area; excavating contaminated soils and incinerating them on or off the site, or alternatively stabilizing and solidifying them; grading and replanting the swamp; properly closing the abandoned water supply well on site; and conducting operation and maintenance activities, as necessary. Cleanup was completed in 1991. Sampling conducted after each cleanup phase confirmed that site cleanup standards were met. The Mowbray Engineering Company site was deleted from the NPL on December 30, 1993.

Site Facts: In 1990, the potentially responsible parties signed a Consent Decree, in which they agreed to assume complete responsibility for the operation and maintenance of the site and to pay for past investigation and cleanup activities.

Environmental Progress

All cleanup activities have been completed at the Mowbray Engineering Company site, and the EPA deleted the site from the NPL on December 30, 1993. Cleanup activities have eliminated all soil, surface water, and groundwater contamination, making the site safe to nearby residents and the environment. The EPA also has completed a 5-year review at the site and verified that the remedy continues to be protective of public health and the environment.

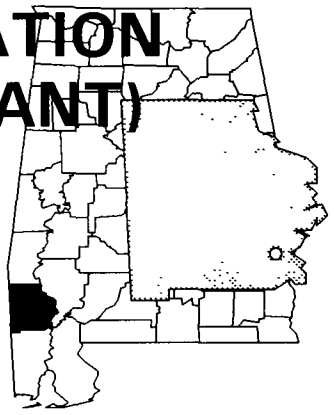
Site Repository

Greenville Public Library, 101 Adams Street, Greenville, AL 36037

OLIN CORPORATION (MCINTOSH PLANT)

ALABAMA

EPA ID# ALD008188708



EPA REGION 4

Washington County
McIntosh

Other Names:
Olin Corp. Old Plant Landfill
Olin Corp-Mercury
Olin Corp Lime Slurry Ponds

Site Description

The 1,500-acre Olin Corporation (McIntosh Plant) has been used since the 1950s to manufacture chlorine and caustic soda, using a mercury cell process. In 1956, Olin constructed a pesticide and organic chemical plant. The plant closed in 1982, and Olin constructed a chlorine and caustic soda plant using the diaphragm cell process, which is in operation today. Olin's past waste disposal practices may have contaminated groundwater. In 1980, Olin began installing monitoring wells and found heavy metals and chlorinated aromatic compounds. Nearby wells supply water to the community of McIntosh and to the Ciba-Geigy and Olin plants. The closest residence is located less than a mile from the site. There are an estimated 220 people residing within a 1-mile radius of the site. Also within 1 mile of the site is a sizable wetlands area. The Tombigbee River is to the east of the site.

Site Responsibility: This site is being addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 09/08/83
Final Date: 09/21/84

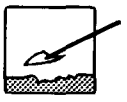
Threats and Contaminants

On-site monitoring wells are known to be contaminated with mercury and chlorinated aromatic compounds. Monitoring also has shown contamination with benzene, carbon tetrachloride, and other volatile organic compounds (VOCs). Accidentally ingesting or coming in direct contact with volatile components of groundwater may pose potential health risks to individuals. Soils in the vicinity of the active plant were contaminated with hexachlorobenzene. The site is presently secured, reducing the risk of exposure to contaminants. The adjacent river and wetland areas may be threatened by contaminants from the site.

Cleanup Approach

This site is being addressed in three phases: initial actions and two long-term remedial phases focusing on cleanup of the entire site and the river basin and associated wetlands.

Response Action Status



Initial Actions: Contaminated areas were capped in 1984 to prevent the infiltration of rainwater. The site also was secured. In 1990, contaminated soils were removed from the active plant facility after having been identified during a maintenance activity.

Entire Site: The parties potentially responsible for the site contamination completed site investigations in early 1993. A remedy was selected for the active plant area and all associated property area outside of the basin in late 1994. The remedy consists of the following actions: pumping and treating contaminated groundwater; extending and upgrading the existing caps to include the old plant landfill; and monitoring and maintaining the existing caps over the sanitary landfill, Lime Pond, and expects the design for these activities to begin during the summer of 1995. This facility is currently operating under a Resource Conservation and Recovery Act (RCRA) post-closure permit and a corrective action plan. Under the corrective action plan, the potentially responsible party at the Olin site reports results regularly to the State.

River Basin, and Wetlands: Water quality and ecological studies are being conducted on the Tombigbee River and the wetlands near the plant to determine the extent of contamination by mercury and other contaminants discharged from the plant into the natural basin near the river. Selection of a remedy for the basin and associated wetlands is expected by the spring of 1996.

Environmental Progress

Initial actions to cover contaminated areas, remove contaminated soils from the active plant facility, and secure the site have reduced the risks of exposure to contaminants at the Olin Corporation (McIntosh Plant) site while further studies and cleanup activities take place.

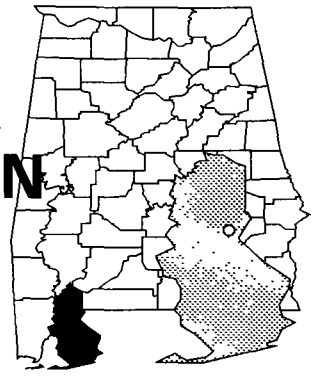
Site Repository

McIntosh Town Hall, Commerce Street, McIntosh, AL 36553

PERDIDO GROUNDWATER CONTAMINATION

ALABAMA

EPA ID# ALD980728703



EPA REGION 4

Baldwin County
Perdido

Site Description

The 15-acre Perdido Groundwater Contamination site was contaminated as a result of a 1965 train derailment on the Louisville and Nashville Railroad (now CSX Transportation, Inc.). Tank cars spilled approximately 7,600 gallons of benzene into drainage ditches, which then seeped into the underlying aquifer. The contaminated area is about 300 yards downgradient of the derailment site. In 1981, residents became concerned about the taste and odor of the well water. The State confirmed contamination of nine wells. As a result of the identification of the benzene-contaminated wells, a Baldwin County Health officer recommended that residents within a 1-mile radius of the derailment use alternate water supplies. Wells no longer are being used for drinking water; however, some well water may be used for livestock and gardens. The Town of Perdido has a population of approximately 450, of which 250 residents were directly affected by contaminated well water. Within a 1-mile radius of the site are about 125 houses and businesses. The surrounding area is agricultural; livestock grazing and timber logging for paper production are the primary activities. A junior high school is 2,000 feet to the south of the train derailment location.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

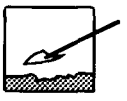
NPL LISTING HISTORY
Proposed Date: 12/30/82
Final Date: 09/08/83

Threats and Contaminants

The groundwater is contaminated with benzene spilled from the derailed tank cars. Contaminated drinking water is not a threat to area residents, since an alternate water supply was provided. However, ingestion of benzene may occur if contaminated well water is being used to water livestock and gardens. Because benzene does not have a tendency to be absorbed by soil, but seeps down into groundwater, there is little threat from direct contact with the soil.

Cleanup Approach

Response Action Status

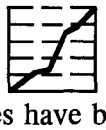


Emergency Response: The National Guard provided two water tanks for affected residents. CSX Transportation voluntarily connected 150 residences within 1 mile downgradient of the site to the Atmore municipal water supply system in 1983.

Groundwater: In 1988, the EPA selected a remedy to clean up the groundwater that includes pumping and treating the water by using air stripping and treating the spent benzene-laden air with activated carbon adsorption. Air stripping is a process in which contaminants are removed by forcing a stream of air through the water. Carbon adsorption involves forcing the air through tanks containing activated carbon, a specially treated material that attracts the contaminants. Once the water is treated, it will be released into the aquifer. The air will be monitored and discharged after carbon adsorption treatment, and groundwater will be monitored after the cleanup to ensure that cleanup goals have been met. CSX Transportation completed construction of the groundwater treatment system in early 1992. Cleanup of the groundwater began in late 1992 and is still ongoing.

Site Facts: CSX Transportation agreed in 1983 to install a groundwater treatment system.

Environmental Progress



Construction of all cleanup remedies have been completed. With the provision of an alternative water supply to affected residents, no immediate threats exist at the Perdido Groundwater Contamination site while the groundwater treatment system is operating.

Site Repository

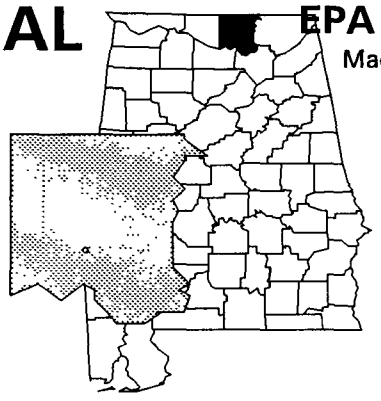
Bay Minette Public Library, 119 West Second Street, Bay Minette, AL 36507

Perdido Water Board, Route 1, Perdido, AL 36562

REDSTONE ARSENAL (USARMY/NASA)

ALABAMA

EPA ID# AL7210020742



EPA REGION 4
Madison County
Huntsville

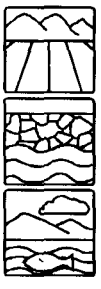
Site Description

Redstone Arsenal (RSA) is a U.S. Army facility that occupies approximately 38,300 acres. About 4,000 acres of this property is owned by the Department of Interior and 2,900 acres is owned by the Tennessee Valley Authority. The George C. Marshall Space Flight Center (MSFC) of the National Aeronautics and Space Administration (NASA) leases another 1,841 acres. RSA is bounded on the north and east by the City of Huntsville, on the west by the City of Madison, on the west and southwest by Wheeler National Wildlife Refuge, and on the south by the Tennessee River. An 11-mile stream segment, including Huntsville Spring Branch, Indian Creek, and a portion of the Tennessee River in the Triana area was placed on the NPL in 1983 as the Triana/Tennessee River site. In 1941, three separate military facilities were established at RSA and worked together to produce conventional and chemical munitions used during World War II. Numerous chemical manufacturing plants were operated at the three facilities. During the war, six mustard gas manufacturing plants operated, producing substantial quantities of sulfur monochloride, ethylene, brine, caustic soda, liquid caustic, chlorine, and thionyl chloride. Lewisite, a chemical warfare agent containing arsenic, was manufactured in four of the plants. Wastes generated from lewisite manufacturing were disposed of in shallow surface impoundments. After the war, the Gulf Chemical Depot facility was used to store captured German chemical agents and surplus chemical munitions and agents, which were buried in various locations throughout RSA. As activities increased, the Army incorporated all lands that the three facilities previously used into the present-day RSA, which is leased to private firms for the production of commercial chemicals and pesticides. The pesticide DDT and chlorine were manufactured on-site by several companies. The manufacture of DDT and other pesticides resulted in significant amounts of hazardous wastes. Large quantities of wastewater containing DDT residues were discharged to Huntsville Spring Branch. In 1960, the aerospace activities conducted by the Army were transferred to NASA. Parts of the site were used for rocket motor assembly. Solid propellants are still being manufactured at RSA. After applying for a permit in 1984, RSA was allowed to build nine Hazardous Waste Storage Igloos in 1986. RSA submitted a revised permit application in 1988. The Storage Igloos, Open Burning Pans and four new Storage Igloos continue to operate under interim status granted by the Resource Conservation and Recovery Act (RCRA). There are two aquifers beneath RSA which are interconnected and referred to as the Tuscumbia-Fort Payne aquifer. Huntsville has a population of nearly 165,000. Approximately 1,000 military families reside in government quarters on RSA, and approximately 31,500 government workers and contractors work at RSA. Three municipal water systems have wells located within a 4-mile radius. An estimated 39,900 people use the wells as their source of drinking water.

Site Responsibility: The site is being addressed through Federal actions.

NPL LISTING HISTORY
Proposed Date: 06/23/93
Final Date: 05/31/94

Threats and Contaminants

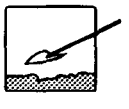


Munitions were buried in various locations throughout the facility. The soil and groundwater is contaminated with various volatile organic compounds (VOCs) and other chemicals, including sulfur monochloride, ethylene, brine, caustic soda, liquid caustic, chlorine, thionyl chloride, and lewisite, a chemical warfare agent containing arsenic. Large quantities of water containing DDT residues were discharged to Huntsville Spring Branch, potentially contaminating surface water. Several thousand acres of the Wheeler National Wildlife Refuge border the site. Touching or ingesting soil or groundwater could be harmful to public health.

Cleanup Approach

The EPA and Department of Defense have identified 109 separate areas of contamination at the site. Approximately half will require full investigations, which will lead to the selection of final cleanup remedies. Four interim actions are underway to address groundwater and source contamination.

Response Action Status



Interim Actions: Interim cleanup actions underway include two pumping and treatment systems to address the groundwater contamination, and the capping of two areas to control the source of contamination and prevent further migration of toxins.

Entire Site: Investigations are being planned to determine the nature and extent of contamination at the numerous areas of the RSA site. As the investigations conclude, final remedies will be selected to clean up the remaining contamination.

Site Facts: Between 1986 and 1988, RSA obtained RCRA permits to build thirteen Hazardous Waste Storage Igloos and Open Burning Pans on their property. In 1983, the U.S. Justice Department issued a Consent Decree to Olin Corporation, which was the principal DDT manufacturer at the site, to begin cleaning up areas affected by DDT. MSCF has applied for a RCRA post-closure permit for the former industrial wastewater treatment facility.

Environmental Progress

The EPA has determined that the public and the environment are not at immediate risk while interim cleanup actions are underway and further studies at the Redstone Arsenal (USARMY/NASA) site are being planned.

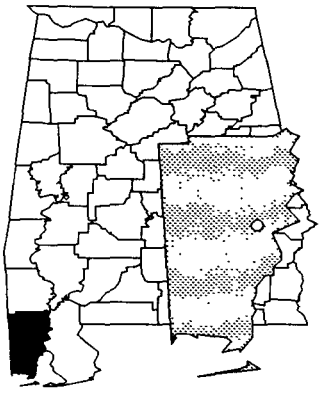
Site Repository

Huntsville-Madison County Library, 915 Monroe Street, SW, Huntsville, AL 35805

REDWING CARRIERS, INC. (SARALAND)

ALABAMA

EPA ID# ALD980844385



EPA REGION 4

Mobile County
Saraland

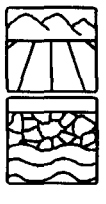
Site Description

Redwing Carriers, Inc. operated a chemical transporting business on this 5-acre site from 1961 to 1971. The site was used as a parking and washing terminal for company trucks that carried numerous substances, including asphalt, diesel fuel, weed killer, oil, and sulfuric acid. After the site was sold by Redwing in 1971, it was covered with fill material and graded, and an apartment complex was built on it. Residents of the complex became concerned after tar-like sludge began oozing to the surface at numerous locations, including the building courtyard and parking lot. In 1985, the EPA detected high levels of volatile organic chemicals (VOCs) in the soil and the leachate coming from the sludge material. The apartment complex houses approximately 160 people. The City of Saraland Water Department provides drinking water to 19,000 people. The water is obtained from three 100-foot-deep wells located less than 2 miles from the site.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 06/24/88
Final Date: 02/21/90

Threats and Contaminants

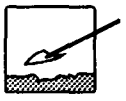


Soil around the apartment complex and leachate from the sludge oozing to the surface are contaminated with various chemicals, including VOCs, from the former site activities. The groundwater underlying the site is contaminated. The drinking water potentially is threatened by the site contamination. There is an additional risk for people who come in direct contact with the tar-like substance oozing from the ground.

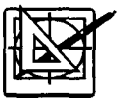
Cleanup Approach

This site is being addressed in two stages: initial actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status



Initial Actions: Redwing removed some of the contaminated soil to a federally-approved hazardous waste facility. The company periodically inspects the site and removes any sludge rising to the surface.



Entire Site: Redwing Carriers, under EPA oversight, completed a study to determine the extent of contamination at the site in 1992. Various alternatives for cleaning up the area were considered. Redwing continued to remove any sludge oozing to the surface while the site study was underway. The final cleanup remedy was selected in late 1992. The major components of the remedy are: excavating sludge, sediments, and contaminated soils; treating and disposing of contaminated soils, sediments and sludge off site; regrading and backfilling excavations using clean, compacted fill material; temporarily and possibly permanently relocating of residents with the potential of demolishing of selected apartment units; treating the contaminated groundwater in the surficial aquifer on site; monitoring and possibly withdrawing and treating groundwater in the alluvial aquifer; and discharging treated groundwater to a publicly owned treatment facility, or to a nearby surface water body. The design of the remedy is near completion. The start of the cleanup activities is expected in the fall of 1995, but is dependant upon time required to relocate nearly 225 people.

Site Facts: The EPA sent notice letters in 1990 to the potentially responsible parties, requiring a study to determine the nature and extent of the contamination. An Administrative Order on Consent with the potentially responsible parties requires them to conduct cleanup activities whenever the tar-like material seeps to the surface of the complex. The EPA has negotiated with additional potentially responsible parties to complete remedy design and cleanup activities.

Environmental Progress

By continually removing the contaminated leachate from the site, the potential for exposure to hazardous materials at the Redwing Carriers, Inc. (Saraland) site is reduced while cleanup activities are being designed.

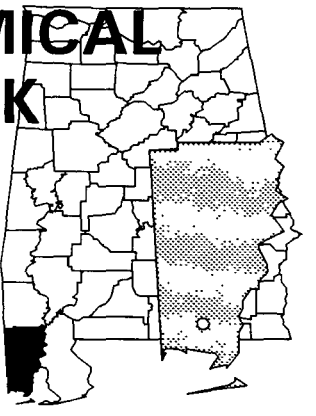
Site Repository

Saraland Public Library, 111 Saraland Loop Road, Saraland, AL 36571

STAUFFER CHEMICAL CO. (COLD CREEK PLANT)

ALABAMA

EPA ID# ALD095688875



EPA REGION 4
Mobile County
Twenty miles north of Mobile

Other Names:
ICI Plant

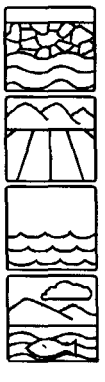
Site Description

The Stauffer Chemical Company's Cold Creek Plant is located approximately 20 miles north of Mobile, Alabama. The plant encompasses approximately 220 acres which is surrounded by industry, a sparsely populated community, and wetlands. The plant manufactures pesticides known as thiocarbamates. Four potential source areas are contaminated with liquid and solid pesticide wastes. The site also consists of a 650-acre contaminated wetland known as Cold Creek Swamp. There are 20 residential drinking water supply wells located within 2 miles of the site.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 09/08/83
Final Date: 09/21/84

Threats and Contaminants



The main threats at the site are groundwater and soil contaminated with various pesticides known as thiocarbamates. The site also encompasses wetlands with contaminated sediments. Accidentally ingesting or coming in direct contact with contaminated groundwater and soil pose a health hazard to individuals. Also, exposure to the mercury-contaminated Cold Creek Swamp sediment and fish may pose a significant threat to public health.

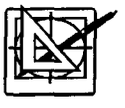
Cleanup Approach

This site is being addressed in three long-term remedial phases focusing on cleanup of groundwater, solid waste management units, and Cold Creek Swamp.

Response Action Status

Groundwater: In 1989, the EPA selected the following remedy to clean up the site: modifing the existing groundwater interception and treatment system; installing additional monitoring and installation wells; continuing to extract groundwater from the surface aquifer through existing and additional intercept wells; monitoring groundwater movement at the site to determine the adequacy of the cleanup action; conducting treatability studies as appropriate to determine the best approach for source treatment; and decommissioning wells no longer needed for monitoring. The potentially responsible parties, Akzo Chemicals and Zeneca, will jointly clean up groundwater contamination at the site. Designs intended to modify the groundwater treatment unit were completed by the potentially responsible parties in 1993. Almost all components of the groundwater extraction system are complete. A total of five intercept wells have been in place and operational since 1993. An upgraded treatment system for wells 1, 2, and 3 is expected in 1995.

Solid Waste Management Units: Four solid waste management units, or source areas, have been identified on site. An investigation of these areas has been completed, and a remedy is expected to be selected in 1995.



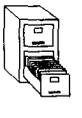
Cold Creek Swamp: The parties potentially responsible for the site contamination were asked to perform an investigation into the nature and extent of contamination at Cold Creek Swamp and to identify alternative cleanup actions. The study began in 1990 and was completed in 1993. In the fall of 1993, the EPA selected a remedy for the site that includes: capping the Upper Arm Swamp Zone and diverting surface water from the area; creating a wetlands environment using native species in the new surface water diversion area to replace the wetland area destroyed by the cap; constructing a carrier to isolate the Upper and Middle Swamp Zones; monitoring Cold Creek Swamp for 10 years after the completion of cleanup activities to ensure their effectiveness; and posting warning signs. Design activities began in 1994 and are scheduled for completion in late 1995.

Site Facts: There is concern that an adjacent rayon manufacturer uses contaminated groundwater in the manufacturing process.

Environmental Progress

The cap on the landfills and groundwater extraction and treatment system have reduced the potential for exposure to hazardous substances at the Stauffer Chemical Co. (Cold Creek Plant) while further studies and cleanup activities are taking place.

Site Repository



Saraland Public Library, 111 Saraland Loop, Saraland, Alabama 36571

STAUFFER CHEMICAL CO. (LE MOYNE PLANT)

ALABAMA

EPA ID# ALD008161176

EPA REGION 4
Mobile County
20 miles north of Mobile

Other Names:
Akzo Plant
Axis Plant

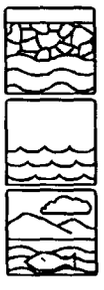
Site Description

The Stauffer Chemical Company's Le Moyne Plant is located approximately 20 miles north of Mobile, Alabama. The plant encompasses approximately 950 acres that are surrounded by industry, a sparsely populated community, and wetlands. The plant began operations in the early 1950s and manufactured carbon disulfide and carbon tetrachloride. In 1964, the company produced chlorine and caustic soda, using the mercury cell process. In 1974, the plant expanded again, producing additional industrial inorganic compounds. During the 1950s and the 1960s, Stauffer used an on-site landfill located east of the manufacturing facility, between the plant and the Mobile River. Fourteen potential source areas were identified on site including a landfill containing wastes that included organics, solvents, heavy metals, acids, and bases. The landfill was constructed in native clay and covered with a vinyl plastic cap. Topsoil was spread over the cap, and the area was revegetated and fenced. Wastes were also held in clay-lined ponds on site. The site also consists of a 650-acre contaminated wetland known as Cold Creek Swamp. Groundwater, sediments, and surface water around the site are contaminated. Groundwater is the sole source of drinking water in this area. Approximately 4,000 people, including the employees of the local industries and the residents of the Axis community, are served by wells located within 3 miles of the site.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 09/08/83
Final Date: 09/21/84

Threats and Contaminants

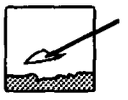


The groundwater in the vicinity of the landfill and ponds is contaminated with various volatile organic compounds (VOCs) including carbon disulfide. Mercury has been found in the sediments of the Cold Creek Swamp. Thiocyanates also were found in sediments under nearby Halby Pond. People could be exposed to the contaminants through direct contact or accidental ingestion and inhalation of contaminated groundwater and sediments. Also, people could be exposed to mercury by eating fish contaminated by Cold Creek Swamp.

Cleanup Approach

This site is being addressed in four stages: initial actions and three long-term remedial phases focusing on cleanup of the groundwater, the solid waste management units, and Cold Creek Swamp.

Response Action Status



Initial Actions: Three extraction wells, with an aeration pond and surface water discharge, have been pumping and treating contaminated groundwater since 1980.

Groundwater: Stauffer Chemical assumed responsibility to study the nature and the extent of the contamination in the groundwater and to conduct subsequent cleanup activities. The study was completed in 1989. The following methods have been selected to augment the existing groundwater cleanup at the site: modification of the existing groundwater system; installation of additional monitoring and extraction wells; extraction of groundwater from the surface aquifer through existing and additional intercept wells; monitoring of groundwater on site to determine the adequacy of the cleanup action; performing studies to determine the best approach for treating the source of contamination; and decommissioning of wells no longer needed for monitoring. Design of the modified groundwater treatment unit is expected to be completed by late 1995. Meanwhile, the existing treatment system continues to operate. Three additional extraction wells have been operational since 1993.

Solid Waste Management Units: Fourteen solid waste management units, or source areas, have been identified on site. An investigation of these areas is ongoing. A remedy is expected to be selected in 1995.

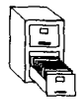
Cold Creek Swamp: The parties potentially responsible for the site contamination were asked to perform an investigation to determine the nature and extent of contamination at Cold Creek Swamp and to identify alternative cleanup options. The investigation was completed in 1993, and the selected remedy includes: excavating contaminated soil from the Transition Zone and disposing of it in the Upper Arm Zone; capping the Upper Arm Zone; revegetating the Transition Zone and restoring it to wetlands; long-term monitoring to ensure the effectiveness of the remedy; building up the levees along the Mobile River to prevent contaminants from migrating from the swamp; and posting "No Fishing" and "No Hunting" signs around the site. The design activities are underway, and scheduled for completion in late 1995.

Site Facts: An Administrative Order on Consent was signed between the EPA and Stauffer Chemical in 1986 for the company to investigate the site in an effort to determine the nature and extent of the contamination. In 1990, a Consent Decree was entered requiring the potentially responsible parties to design and implement the selected groundwater remedy. There is concern that a rayon manufacturer adjacent to the Stauffer Chemical plants may be using contaminated groundwater in processing operations.

Environmental Progress

Extraction wells have been pumping contaminated groundwater since 1980, reducing the potential for exposure to hazardous materials, while further studies and cleanup activities are being conducted.

Site Repository

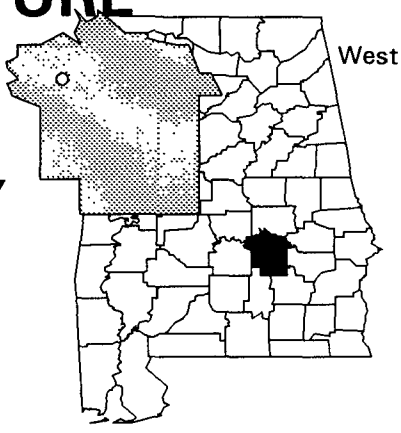


Saraland Public Library, 111 Saraland Loop, Saraland, Alabama 36571

T. H. AGRICULTURE & NUTRITION COMPANY (MONTGOMERY PLANT)

ALABAMA

EPA ID# ALD007454085



EPA REGION 4

Montgomery County
West of Maxwell Air Force Base

Site Description

The 11½-acre T. H. Agriculture & Nutrition Company (Montgomery Plant) site previously was used to distribute pesticides. The southern boundary of the site was extended by approximately 5 acres. A former pesticide formulation operation owned by Pennwalt (now ELF Atochem North America, Inc.) was located on this adjacent 5-acre plot. During the 1970s and, possibly, the late 1960s, the T.H. Agriculture Nutrition Company operated under the name of Thomson-Hayward Chemical Company, but this company closed in 1980. The company changed its name to T.H. Agriculture & Nutrition Company in 1981. When the plant operated, insecticides, herbicides, and other chemical wastes were buried in pits and trenches covering 1 acre of the plant site. The City of Montgomery's water supply division has 21 wells within 3 miles of the site, and this system serves approximately 250,000 people.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 06/24/88
Final Date: 08/30/90

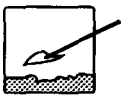
Threats and Contaminants

The pesticide lindane was discovered in the groundwater on and off the site. The soils and sediments on the site are contaminated with lindane, toxaphene, DDT, and other pesticides. Drinking contaminated groundwater or coming into contact with contaminated soils and sediments is a potential health hazard to the nearby residents.

Cleanup Approach

This site is being addressed in two stages: immediate actions and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status



Immediate Actions: In 1981, T. H. Agriculture & Nutrition Company voluntarily agreed to remove 2,900 cubic yards of contaminated soil to a federally-approved facility.

Entire Site: In 1991, ELF Atochem agreed to perform a detailed study of the site, under EPA supervision, to determine the extent of groundwater and soil contamination and evaluate possible cleanup alternatives. A final cleanup remedy for the site is scheduled to be selected by late 1995.

Site Facts: A 700,000 gallon-lined-lagoon was closed in cooperation with the Alabama Department of Environmental Management on the adjacent 5 acres in 1978. An Administrative Order on Consent was signed between the EPA and Atochem North America, Inc. in March 1991, requiring the company to conduct site investigations.

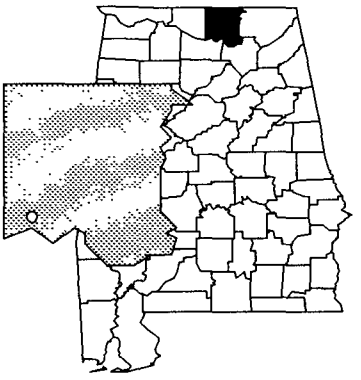
Environmental Progress

The removal of contaminated soil has reduced the potential for exposure to hazardous materials at the T. H. Agriculture & Nutrition Company (Montgomery Plant) site while investigations are taking place. An interim remedy to implement an early groundwater pump and treat system is expected in the spring of 1995.

Site Repository

Air University Library, Maxwell Air Force Base, Montgomery, Alabama.

TRIANA/ TENNESSEE RIVER
ALABAMA
EPA ID# ALD983166299



EPA REGION 4
Madison County
Triana, near Huntsville

Other Names:
USA Redstone Arsenal
Olin Corp/Huntsville Plant
US Army Missile Command
Triana (Redstone) Arsenal

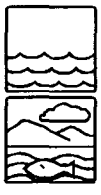
Site Description

The Triana/Tennessee River site occupies approximately 1,400 acres, near the small town of Triana. It is situated along 20 miles of the Tennessee River and its tributaries. The pesticide DDT was manufactured for commercial use by a lessee, Olin Corp., at Redstone Arsenal (RSA) in Huntsville between 1947 and 1970. The manufacturing, handling, and disposal practices at the facility led to the discharge of DDT residues through RSA's drainage system into the Huntsville Spring Branch-Indian Creek tributary system, which enters the Tennessee River. An estimated 475 tons of DDT residues accumulated in the sediment of the tributary system. The plant was closed and demolished in 1971. The area surrounding the site is rural and has a population of 600 residents. The community has been affected by the contamination because the residents depend on, to some extent, locally caught fish for food. Until the introduction of a water supply system in 1967, residents used water from Indian Creek and the Tennessee River.

Site Responsibility: This site is being addressed through Federal and potentially responsible parties' actions.

NPL LISTING HISTORY
Proposed Date: 10/23/81
Final Date: 09/08/83

Threats and Contaminants



Huntsville Spring Branch-Indian Creek and the Tennessee River have shown signs of contamination with DDT. Eating fish from contaminated rivers, creeks, and streams could be harmful to the health of the public. Drinking water from these sources also may be a potential health threat. To a lesser extent, coming in direct contact with the sediments from the contaminated river, creek, or tributaries may be harmful. The contamination of the Tennessee River and its tributaries has affected the recreational use of the area. The Huntsville Spring Branch flows through the Wheeler Wildlife Refuge, and contamination threatens the wildlife.

Cleanup Approach

Response Action Status

Entire Site: The Olin Corporation submitted its final engineering design for cleaning up the site in 1986 and began construction on the initial cleanup phase. All construction was completed in 1987. The methods that were used to clean up the site included: bypassing, and burying on site, the most heavily contaminated channel area; and continuing programs for fish and water studies and investigations of the movement of contaminants through the water and the fish. Fish, water, and sediment monitoring will continue to determine progress made at the site. Targeted cleanup standards are scheduled to be met in 1998. The first year's monitoring showed reduced levels of DDT in selected fish species. Average DDT concentrations in the water column are significantly lower than original conditions throughout the Huntsville Spring Branch-Indian Creek system. In the 1990 data, DDT concentrations in fish decreased by a range of 39 percent to 90 percent, with an average of a 72 percent decrease in contaminant concentrations from original conditions.

Site Facts: In 1983, Olin and the EPA settled on Olin's responsibility to conduct a study of the site and the final design for its cleanup. The settlement included a Consent Decree that required Olin to develop and carry out a remedial plan to isolate DDT from the nearby population and environment. The final remedy plan, now being implemented, was submitted and reviewed by a panel consisting of representatives from the EPA, the Tennessee Valley Authority, the Fish and Wildlife Service, the Department of the Army, the Alabama Department of Environmental Management, and the Olin Corporation. This panel is overseeing Olin's cleanup action until it meets the performance standards.

Environmental Progress

Construction of cleanup remedies and initial cleanup activities have been completed at the Triana/Tennessee River site. The parties potentially responsible for site contamination, under EPA guidance, will continue to oversee monitoring activities at the site and ensure the long-term effectiveness of the treatment methods used.

Site Repository

Town Hall, Town of Triana, 640 Sixth Street, Madison, AL 35758